Plant and Soil **178**: 319–322, 1996.

Contents Volume 178 (1996)

Research articles

Altitudinal changes in humus form dynamics in a spruce forest at the montane level 1–28
N. Bernier

Determination of chitin in fungi and mycorrhizal roots by an improved HPLC analysis of glucosamine 29–35
A. Ekblad and T. Näsholm

soil aeration in relation to soil physical properties, availability, and root characteristics within an arctic watershed 37–48
R.L.E. Gebauer, J.D. Tenhunen and J.F. Reynolds

Assessment of denitrification in organogenic forest soil by regulating factors 49–57
K. Robertson and L. Klemedtsson

Effect of heavy metals on peppermint and cornmint 59–66
V.D. Zheljazkov and N.E. Nielsen

Agarose as a suitable substrate for use in the study of Al dynamics in the rhizosphere 67–74
H. Calba, B. Jaillard, P. Fallavier and J.-C. Arvieu

Glycolytic gene expression in amphibious *Acorus calamus* L. under natural conditions 75–82
M. Bucher, R. Brändle and C. Kuhlemeier

Phytotoxic effects of the high molecular weight fraction of an aqueous leaf litter extract on barley root development 83–93
I. Brunner, J. Luster, M. Ochs and P. Blaser

Shoot Sr concentration in relation to shoot Ca concentrations and to soil properties 95–100
D.S. Veresoglou, N. Barbayiannis, T. Matsi, C. Anagnostopoulos and G.C. Zalidis

Evaluation in field conditions of a three-dimensional architectural model of the maize root system: Comparison of simulated and observed horizontal root maps 101–112
S. Pellerin and L. Pagès

Nutrient availability of earthworm casts collected from under selected woody agroforestry species 113–119
B.T. Kang and A. Ojo

N, K and P deficiency in chronosequential cut summer-dry grasslands on gley podzol after the cessation of fertilizer application 121–131
D.M. Pegtel, J.P. Bakker, G.L. Verweij and L.F.M. Fresco

Effects of aluminium on polyphosphate mobilization of the ectomycorrhizal fungus *Suillus bovinus* 133–140
T.G.M. Gerlitz

Fate of urine nitrogen on mineral and peat soils in New Zealand 141–152
T.J. Clough, R.R. Sherlock, K.C. Cameron and S.F. Ledgard

Re-sorption of organic compounds by roots of *Zea mays* L. and its consequences in the rhizosphere. III. Characteristics of sugar influx and efflux 153–160
D.L. Jones and P.R. Darrah

Siderophore-bound iron in the peribacteroid space of soybean root nodules 161–169
J.B. Wittenberg, B.A. Wittenberg, D.A. Day, M.K. Udvardi, C.A. Appleby

The role of nicotianamine synthase in response to Fe nutrition status in Gramineae 171–177
K. Higuchi, K. Kanazawa, N.-K. Nishizawa, S. Mori

Utilization of organic phosphorus in calcium chloride extracts of soil by barley plants and hydrolysis by acid and alkaline phosphatases 179–184
B. Seeling, A. Jungk

Nutrient inflow and root proliferation during the exploitation of a temporally and spatially discrete source of nitrogen in soil 185–192
M.M.I. van Vuuren, D. Robinson, B.S. Griffiths

Nitrogen fixation by nine white clover cultivars in grazed pasture, as affected by nitrogen fertilization 193–203
S.F. Ledgard, M.S. Sprosen, K.W. Steele

Pot size affects expression of Mn efficiency in barley 205–208
C. Huang, M.J. Webb, R.D. Graham

The effect of soil pH on the ability of ectomycorrhizal fungi to increase the growth of *Eucalyptus globulus* Labill 209–214
B.D. Thomson, T.S. Grove, N. Malajczuk, G.E.StJ. Hardy

Factors affecting production of COS and CS_2 in *Leucaena* and *Mimosa* species 215–222
Z. Feng, P.G. Hartel

Variation in acquisition of soil phosphorus among wheat and barley genotypes 223–230
T.S. Gahoonia, N.E. Nielsen

Response of citronella Java (*Cymbopogon winterianus* Jowitt) to VA mycorrhizal fungi and soil compaction in relation to P supply 231–237
S.K. Kothari, U.B. Singh

Dynamics of lead accumulation in mycorrhizal and non-mycorrhizal Norway spruce *(Picea abies* (L.) Karst.) 239–245
P. Marschner, D.L. Godbold, G. Jentschke

The survival and development of inoculant ectomycorrhizal fungi on roots of out-planted *Eucalyptus globulus* Labill. 247–253
B.D. Thomson, G.E.StJ. Hardy, N. Malajczuk, T.S. Grove

Influence of salinity on the biological and biochemical activity of calciorthird soil 255–263
C. García, T. Hernández

Genotypic differences in the uptake and distribution of radiocaesium in plants 265–271
J. Buysse, K. van den Brande, R. Merckx

Flue gas desulfurization gypsum improves orchardgrass root density and water extraction in an acid subsoil 273–281
C.M. Feldhake, K.D. Ritchey

***Alnus rubra* nodulation capacity of soil under five species from harvested forest sites in coastal British Columbia** 283–286
J.H. Markham, C.P. Chanway

Preliminary studies of the impact of excreted N on cycling and uptake of N in pasture systems using natural abundance stable isotopic discrimination 287–294
S.J. Kerley, S.C. Jarvis

Canopy throughfall of *Picea abies* (L.) Karst. as depending on trace gas concentrations 295–310
S. Slovik, Á. Balázs, A. Siegmund

Inter-varietal differences in xylem exudate composition and growth under contrasting forms of N supply in cucumber 311–317
P. Zornoza, M. Gonzalez, S. Serrano, O. Carpena

Contents Volume 178 (1996) 319–321

Author Index 322

Instructions to authors (1996) 323–325